



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/533,997

11/25/2005

Dietrich Wolf

0808.72992

2593

24978 7590 03/03/2009

GREER, BURNS & CRAIN
300 S WACKER DR
25TH FLOOR
CHICAGO, IL 60606

EXAMINER

PAN, HANG

ART UNIT

PAPER NUMBER

4123

MAIL DATE

DELIVERY MODE

03/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,997	Applicant(s) WOLF, DIETRICH	
	Examiner HANG PAN	Art Unit 4123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the tree structure of the hierarchy in claim 6 must be shown in the figures or the feature must be canceled from claim 6. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informality: on page 5, second paragraph, the phrase “to construct and application” should be “to construct an application”.

Appropriate correction is required.

Claim Construction

The “means of connections” in claims 1, 3, 4, and the “means of visualizing” in claim 6 do not properly invoke 112-6th paragraph, because they fail the three prong test (see MPEP2181).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 – 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 section (a) recites the phrase “its processing function” and the phrase “the processing function”, which lack sufficient antecedent basis.

Claim 1 section (a) recites the phrase “the inputs and output(s)”, which lacks sufficient antecedent basis.

Claim 1 section (a) recites the phrase “the connections”, which lacks sufficient antecedent basis.

Claim 1 recites the phrase “output(s)”, it is unclear if it intended to mean “output” or “outputs”.

Claim 1 recites the phrase “and/or”, it is unclear if it intended to mean “and” or “or”. For the purpose of the examination, this phrase is interpreted as “or”.

Claims 3 and 4 recite the same phrases listed above as in claim 1.

Claim 2 recites the phrase “the part-hierarchy”, which lacks sufficient antecedent basis.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 1-2 and 4-6, the subject matters in the claims are “application framework” and “computer program”. Computer programs per se, when not tied to a particular hardware apparatus, are considered as functional descriptive material, thus they are not considered one of the patentable subject matters under 35 U.S.C 101. See MPEP 2106.01.

With respect to claim 3, while the claim recites a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (see *In re Bilski*, 88

Art Unit: 4123

USPQ2d 1385 (Fed. Cir. 2008)). The series of steps in the claimed process are not tied to a particular apparatus. Thus, the instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Symphony: A Java-based Composition and Manipulation Framework for Distributed Legacy Resources” by Shah et al, hereafter “Shah”, in view of Minard (US patent 6247020).

With respect to claim 1, Shah teaches **“An application framework under which product applications are configured and manipulated”** (p1, abstract, “Symphony is an open and extensible Java-based framework for composition and manipulation of distributed legacy resources”); **“comprising: (a) application objects providing respective basic information processing functions for use in a product application, each application object containing its processing function within a standard interface with the inputs and output(s) of which the processing function communicates without regard to the connections of those inputs and output(s)”**; (p1, left column, 2nd paragraph, “The client components are implemented as Java

Art Unit: 4123

beans”, Javabeans is the standard interface all components communicate in); (p1, left column, 2nd paragraph, “client components that represent resources such as data, programs and tools”); **“(b) an architectural structure in which: data dependencies between application objects are established by means of connections between standard interface inputs and output(s) of application objects”** (p1, right column, 2nd paragraph, “A meta-program is a set of linked program and data components implemented as a data-flow graph that defines how each program accepts data from a previous computation step and produces data for further processing”); **“whereby the hierarchy can be modified at run-time, and data dependency connections can be set up and/or deleted at run-time”**. (p1, left column, 2nd paragraph, “The client components are implemented as Java beans”, p6, left column, 2nd paragraph, “Every bean publishes certain properties which can be discovered by the BeanBox at run-time and customized by the user.”)

Shah does not teach **“application objects are organised into a hierarchy, the application objects being in parent/child relationship one to another in the hierarchy, and the hierarchy comprising an assembly of application objects capable of providing for a product application an application function built from the basic information processing functions of the objects”**. Minard teaches components of an application (classes in a JAVA file) organized into a hierarchy, and the components have ancestry relationships (Column 11, line 17-27). A JAVA application file contains many classes, each class has a function. It would be obvious at the time of the invention to a person of ordinary skill in art to combine Shah with Minard

Art Unit: 4123

such the application objects are organized into a hierarchy and the application objects being in parent/child relationship one to another, because a hierarchy is a well known way to organize software components, and software components often have parent/child dependency relationships when they are implemented in a software process.

With respect to claim 2, Shah in view of Minard teaches all the limitations in claim 1. Shah further teaches **“wherein different parts of the hierarchy are contained or run in respective different containers which each provide a single processing thread for the application objects of the part-hierarchy concerned and provide a single input messaging thread for communication with those objects, whereby the containers can be run in a distributed manner on respective different machines or processes”**. Shah teaches containers in a hierarchy (P1, right column, 3rd paragraph, “Since JavaBeans is an open, published API and is supported by a large number of Java development tools and Java runtime environments, beans that conform to the API can be composed and manipulated within any such beans container”). Shah (p4, left column, first paragraph) teaches beans provide processing thread (standard output stream) and input thread (standard input stream). Shah teaches the framework in a distributed manner (P1, Abstract, “Symphony allows users to compose visually a collection of programs and data by specifying dataflow relationships among them and provides a client/server framework for transparently executing the composed application”).

Claim 3 recites the same limitations as in claim 1, see claim 1 rejection.

Claim 4 recites the same limitations as in claim 1, see claim 1 rejection.

With respect to claim 5, Shah in view of Minard teaches all the limitations in claim 4. Minard (column 7, line 38 – 39) further teaches “**comprising a library of application objects available for implementation in the hierarchy**”).

With respect to claim 6, Shah in view of Minard teaches all the limitations in claim 4 or 5. Minard (column 11, line 25 – 27) further teaches “**providing means of visualizing the hierarchy as a tree structure**”).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

DeGroote et al (US Patent 7076763) teaches a live component based web application development system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HANG PAN whose telephone number is (571)270-7667. The examiner can normally be reached on Mon-Fri 8AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Robertson can be reached on 571-272-4186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4123

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Emerson Puente/
Primary Examiner, Art Unit 2113

/H. P./
Hang Pan
Examiner, Art Unit 4123
February 26, 2007